

Case studies in rural innovation: pain management and second-stage recovery

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This paper is an informal case study of successful internally driven innovation¹ processes in two rural Victorian hospitals. In each of the projects investigated, rural health services have adopted and adapted excellent practices well in advance of their metropolitan counterparts. One interviewee said

There is always a chip on your shoulder when you are in the country and there is a desire to demonstrate that we can be equal to, if not better than, the city.

These case studies clearly demonstrate that rural health services can, and do, serve their communities with practices that lead the way in quality and safety.

This investigation² seeks to discuss some of the elements that led to the successful adoption of innovative practices. Though there were significant variations in the complexity and scale of the changes (the introduction of a new pain management technique and the development of a second stage post-operative recovery unit) there were also significant similarities relating to individual drivers, the value of personal links, bottom-up change management processes, supportive institutional environments and influence of rural settings.

The stories that form the basis of this paper serve to demonstrate that locally initiated change, though never easy, is possible with sufficient commitment and that the special circumstances of rurality can be a positive factor in instigating and developing innovative practices.

Case studies

The two stories of innovative practices are outlined below in brief narrative style, with further discussion of the salient points of comparison following.

¹ 'innovation' is here defined as the introduction of a new way of thinking and/or process

² Methodology: Initially, one hour semi-structured guided interviews with the key instigators were undertaken using a proforma designed to elicit information relating to:

- Sources of information used as exemplars in project development
- Supports and barriers to the implementation of the innovation, and
- Leadership style and method.

General information and direct quotes where relevant were transcribed and checked for accuracy with the interviewees. Further informal interviews of about an hour served to draw out details of specific individual involvement and/or to clarify developing themes. Additionally, email correspondence was utilised where necessary to elucidate specific details.

Sterile Water Injections for lower back pain during labour

Based on interviews with Ms Wendy James, Unit Manager Midwifery, Wimmera Health Care Group (at the time of the project)

While on a Rotary Study Tour in Norway, Wendy James, then Nurse Unit Manager, Midwifery at the Wimmera Health Care Group (WHCG), Horsham, Victoria³, visited a local hospital. She asked about pain relief in labour and was told 'sterile water injections'. She reports thinking: 'I couldn't believe what I was hearing! [I thought] I have to look into this... this is good'. Once back in Australia, she began looking for references to this procedure. There was a body of literature indicating that this was a common and well-tested technique in many overseas countries but there were no references to its use in Australia. Her initial response was

Disbelief that something this simple had not been used in Australia before ... really thought it was just us—a small rural hospital—that hadn't heard of it'.

As there was a solid evidence base and clear benefits to both the patient (no risk, choice of pain management, immediate application) and practitioners (could be administered by midwives, no need to chase orders, streamlined the process, low cost, no side effects) Ms James began the process of introducing the practice to the Horsham hospital. The new procedure offered an avenue for midwives to offer and deliver immediate, non-pharmacological pain relief to the women in their care. This aspect of the change, along with its clear track record of efficacy and value to the patient, were powerful attractors.

Ms James began by speaking directly to other midwives on the ward, aware that their support would be critical to the success of the innovation. As an accidental result of this local lobbying process, Ms James came into contact with Janice Deocampo, a Registered Midwife at Colac Area Health (CAH) who had seen the sterile water technique in person while supporting her daughter during labour in Scandinavia. She had introduced the technique to the Colac⁴ hospital. There were policies and procedures developed and in place, and eighteen months of data collected, but ethics approval had not been sought prior to the instigation of the innovation. The two women joined forces, with their respective organisations combining to institute a randomised control trial for the new procedure. Even before the publication of the results there was a great deal of professional interest in this technique that has no side effects and great potential benefits.

Ms James feels that it was harder to introduce a model from overseas than an Australian idea. 'No-one knew about it [and]there was lots of reservation about it'. She adds,

Early on, there was resistance to the idea [and I] had to work to sell the idea. People don't just say "Great! Let's do it" [but] it got easier after they saw the end product. There was still an attitude that is was only us—more people needed to have the "Eureka" moment.

Second Stage Recovery Unit

Based on interviews with Dr James Muir, Director of Anaesthetics, Western District Health Service and Mr James Smith, Unit Manager Surgical/Obstetrics/Paediatrics, Western District Health Service

The Western District Health Service (WDHS), in Hamilton⁵ in south-west Victoria has an active surgical unit. A second-tier hospital in a small rural town might seem, on the face of it, an unlikely candidate to introduce a major innovation, in this case a second-stage recovery unit (SSR), but that is the vision that Dr Muir, Director of Anaesthetics, and a team of dedicated staff also led by James Smith, Nurse Unit Manager, Surgical/Obstetrics/Paediatrics, set out to create. This concept is well defined in the literature and in practice overseas, but was not in current practice in Australia. An on-going process of attention to surgical patients' journey through the hospital, internal staff wishes to improve processes on the surgical ward and the added spur of an adverse outcome, meant that the time was ripe for change. The adoption of a second stage

³ Horsham is a town of c. 15,000 and the Wimmera Health Care Group is the primary birthing centre for the Wimmera region in Victoria's west, an area of some 30,000 km/sq with a population of c. 40,000. See www.wimmerahealth.com

⁴ Colac is a town of c. 11,000 in the Colac Otway Shire, in the Barwon region of south western Victoria.

⁵ Hamilton is a town of c. 10,000 and is a sub-regional centre. The Western District Health Service encompasses the Hamilton Base Hospital and a variety of acute, allied and community health and aged care services over several campuses. See www.wdhs.net

recovery unit has developed into a complex of innovations in infrastructure, documentation, procedures, protocols and training centred around one simple idea: how to best create a safer environment for post-operative patients.

The Eureka moment for this project came while watching television, which triggered an association with an overseas model of practice. Simply put, it would be much easier to place patients of concern, in one place with a specific staff profile and easy visual and physical access (as happens on M*A*S*H) than to work with existing systems on the ward floor.

However, this is much more easily said than done. In this case, there was a pre-existing concern at an organisational level and an articulated desire from the nursing staff for change. Dr Muir says 'at least every week a ward nurse was coming to see me, asking for help as they were feeling under the pump. Mr Smith says 'as Unit Manager, it was time to address the identified need... new ideas can be slow. It helps to ask "how should we do that?"'. At the same time that Mr Smith was quietly canvassing the ward nurses, building support for the incipient changes, Dr Muir reports that he was undertaking a process of direct informal lobbying with relevant clinical and direct care staff and a more formal process of contact with relevant management positions. This process of intuitive and informal change management progressed concurrently with the introduction of what was developing into a suite of innovations. Central to the change process was the SSR. All post-surgical patients are moved from recovery to the SSR for a period of at least four hours. Observations are taken with greater frequency and all patients are under continual visual supervision from a senior nurse. In addition, extra windows were installed to allow visual access for passing staff. At the end of this time, calculated as the greatest risk period for post-surgical complications, if all is progressing as it should be, patients are moved onto the ward. Evaluation of the SSR, and the complex of other system and documentation changes that have cascaded out of the initial innovation, show that the goal of improving post-operative care has been achieved and that WDHS has effected improvements in patient safety and quality of care that place it on par with world's best practice.

Both interviewees report that the process of the innovation was smooth, though protracted and complex. Both see clear benefits to the changes that have been implemented and would strongly recommend the process of instituting a second-stage recovery unit to other hospitals.

Themes from the case studies

In both of the case studies outlined here the following themes emerged:

- That the role of the individual as a catalyst for change was crucial and that a moment of inspiration can stimulate the on-going energy needed to embed a new idea.
- Personal links, both at the moment of inspiration, and during the development of support, information and evidence for the new processes, were primary drivers for the innovation process
- The importance of building a mutually supportive alliance with on-the-ground-practitioners was the first strategy identified to begin the change process.
- A supportive workplace, including the critical friends who test new ideas, was vital for the adoption of bottom-up innovation. This included colleagues, executives and supportive governance structures. It is noteworthy that these innovations both developed entirely within the clinical administration of the hospital.
- Both health services, with their relatively flat administration profile and local staff members who shared strong commitments to improving services for their organisation, their patients and their local, rural communities created a supportive environment to facilitate innovation and change.

Examination of the identified themes

Health services are significant corporate citizens in rural communities. Not only do they care for the wellbeing of rural citizens from cradle to grave, but their workforces are always a significant demographic, usually rivalled only by local government in smaller, less industrialised rural centres. Health services attract and retain a skilled workforce with a valued status. Growing international workforces and the dictates of rigorous

evidence-based practice can give rural health services an edge in identifying and adopting innovative and improved practice as compared with other rural organisations. Several other factors mediate the ability to capitalise on these advantages. A further discussion of some of these factors, common to both of the preceding case studies, follows:

The individual as a catalyst

During the course of the interviews undertaken for this paper the following equation became evident:

$$\text{Evidence} + \text{ethics} + \text{inspiration} \geq \text{inertia in the system}$$

To state that there is inertia in health care organisations is not a criticism. Systems are, and should be, inherently stable. The purpose of this equation is to highlight that extra element of inspiration and personal commitment that is often needed to drive local innovation and the evolution of systems and organisations. Both of these case studies have central characters that relentlessly pursued their respective goals. When asked 'Why you?' the interviewees responded as both individuals and with respect to their roles, but the general sentiment was succinctly provided in one case as 'No-one else was going to do it'.

Unexpected inspirations

As Ms James says:

If I had not gone to Norway, hadn't asked about pain relief, hadn't had a student nurse to link to Kerry and Janice, if Janice's daughter hadn't had a baby overseas with Janice there watching ...

Sometimes the inspiration is immediate (an added bonus while on holidays) while in other cases the exposure to new ideas might be absorbed and be triggered in an unexpected way at a later date (popping to the surface while watching TV). What these case studies illustrate is that where inspiration strikes, and the idea has ethical and evidential imperatives, individual enthusiasm and diligence can, properly supported, provide the extra energy needed to create something new and better.

Personal links

The two case studies share elements that hinge on personal links. These took a variety of forms but were crucial to the development of the innovations. Ms James met with Danish nurses, discovered a link to another person with a similar experience and commitment to change, formed a strong relationship with that person and used direct personal contact both within and beyond the Wimmera Health Care Group to develop and promote the use of sterile water injections for back pain in labour. At the Western District Health Service, the two key players used complimentary personal links to research and embed the second-stage recovery unit and attendant changes to documentation and education. Dr Muir responded to personal appeals from other staff by utilising existing and new personal links outside of the organisation while lobbying individuals within WDHS. Mr Smith used a very direct and supportive hands-on approach to work with individuals in the organisation during the change process, ensuring that his staff felt consulted and involved, and has since used personal contacts with practitioners in other organisations to help identify and then promulgate another innovative service model.

Bottom-up change

That these case studies clearly represent bottom-up change is self evident. All three interviewees had been part of change teams before, though only one as leader. All report that they would gladly step up and lead an innovative process again, either to spread the ideas and practices that are the subject of this paper or other processes as the need and opportunity arises. Mr Smith spoke about the unique aspects of bottom-up change, contrasting the acceptance of internally generated change with that imposed externally, saying that there are:

constant changes thrust upon you. [It is] relentless. There is a lot of change here and [nurses] can be wary of it because there is a lot—there are no gaps in [the pace of] organisational change.

It is important to note here that locally generated change must, and can, overcome the exhaustion and scepticism that can be an initial reaction to change. The chip on the shoulder referred to at the beginning of

this paper can become a powerful tool when used to harness local pride in a rural health organisation that is leading significant change.

One important proviso was articulated. Local change must still be needed change. As Dr Muir puts it 'You can make work for yourself fixing things that aren't broken'. However, he speaks for all three interviewees when saying 'this has not put me off tilting at the next windmill'.

Supportive work-places

Both case studies share experiences of supportive organisations. Both report that their governance structures offered support and encouragement for the projects when briefed on the proposed changes. Colleagues also supported the changes. All three interviewees pointed to the necessity to garner support from direct care staff, particularly the nurses and midwives affected by the changes. In each case, the changes sought support from those cohorts but also provided inherent avenues for empowerment to direct care staff. In a particularly striking example, Mr Smith went through some relevant training with his nursing staff, though he had already completed the training previously. This show of solidarity and modelling of the value of the process no doubt went a long way towards smoothing the path of the innovation.

Ms James articulates a common theme:

The culture for change has to be there [you have to] pick your mark and know who is open to listening. [This project] does prove we **can** do it and that leads to a change culture. It is more likely that a new idea will come forward—there is a flow on effect'.

Supports of a rural environment

Rural health services exhibit strong connections to their communities. Rural health professionals care for their own family and friends on a daily basis. This lends an extra relevance and impetus to innovation and improvement of services. Rural health services are often a source of great pride to local communities. Ms James points out that 'many staff are embedded in their communities—partners have local businesses or farms'. She adds that the corollary of this is that 'professional decisions can be about community good'. Smaller organisations also mean greater access to relevant people. It is possible to personally lobby all the key players. As the case studies exhibit, this is an important part of generating change. Finally, a common sentiment was that being in a rural area can spur individuals and services to prove that they can achieve as much or more than their urban counterparts. Ms James is in the unique position of having worked for both WHCG and WDHS and she speaks highly of the openness to new ideas in both organisations, positing that 'it might be because we are in rural areas and want to prove ourselves'. This mirrors the sentiment expressed by Dr Muir that 'there is a desire to demonstrate that we can be equal to, if not better than, the city'.

The most obvious factor in the success of the innovations described is the personal commitment and drive of the instigators. The three interviewees have all expressed satisfaction with their involvement in the projects and their willingness to undertake a similar process should the need arise. When asked why they choose to work in a rural health service, the interviewees said:

I **can** effect change here.

You can seize the moment and create something in your organisation

You don't get bored—the wards are more diverse. There is variety.

knowing everyone—being able to have a conversation with the CEO, doctors, cleaners—people know who you are.

there is more understanding across the wards—junior staff work across all wards.

you have to use your brain to do a few things at once.

There is more support amongst the staff and from the organisation.

These are all quotes clearly support and underpin the first two messages that the three interviewees wish to communicate to other rural health practitioners, that enthusiasm and diligence should be fostered locally and that opportunity and evidence should guide innovation and improvement.

The third recommendation recognises that enthusiasm, diligence, opportunity and evidence at the individual and organisational levels would be best supported by a national network of best practice consolidation that recognises the potential in rural health services. These case studies have shown that personal links and unexpected moments of inspiration have catalysed local change processes. To some degree, there is an element of felicity at work. Though every organisation has dedicated staff who, fostered and supported by their organisations, can elicit valuable change, a stronger connection to more readily available best practice models will enhance and increase the uptake of new procedures and practices. This third recommendation addresses the extra barriers to innovation and the assimilation of new practice models in rural health services (see recommendation 3, attached)

Rural health services combine strong, direct connection to local community, dedicated staff, an extra degree of connectivity across the organisation, multi-skilled staff who engage strongly with professional networks and opportunity to create unity of purpose within and between organisations. None of these are exclusively rural traits. However, the unique conditions of rurality can combine to make rural health services particularly fertile ground for change.

Recommendations

Enthusiasm and diligence fostered locally: That individual enthusiasm and diligence in the workplace be fostered, supported and harnessed as an essential component of continual improvement in health care.

Opportunity and evidence guiding innovation and improvement: That health services maintain active strategic oversight of local needs and be prepared to react swiftly where opportunity and evidence provide a prospect of viable and reasonable local action.

Equitable access to coordinated and evaluated best practice models: That a national clearing house for best practice in health care establish a 'rural practice lens' to identify and supply national and international best practice models to all Australian health services, taking into account, where necessary, the specific needs of rural and remote health services.

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